

**Notice of Allowability**

Application No.

10/762,705

Examiner

Lam P. Pham

Applicant(s)

MILLS ET AL.

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to January 22, 2004.
2. ☒ The allowed claim(s) is/are 1-7, 9-12, 14-20 (1-18).
3. ☒ The drawings filed on 22 January 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|   | 9. <input type="checkbox"/> Other _____  |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Justin Purcell on June 21, 2005.

The application has been amended as follows:

Cancel claims 8, 13.

**Claim 1**, line 15: delete [.] after "command" and insert:

: wherein said redundancy system comprises a GPS system comprising a GPS receiver receiving signals from a satellite indicating a position of the system relative to said road markers.

In claim 7, line 2: insert "further" between "system and comprises" and delete [a GPS system,].

In claim 11, line 12: insert between ":", and and":

wherein verifying comprises receiving satellite tracking information for the vehicle and generating a verified turn completed signal as a function of a determination that the vehicle has completed said turn or generating a verified lane change signal as a function of a determination that the vehicle has completed said lane change;

***Allowable Subject Matter***

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2. Claims 1-7, 9-12, 14-20 allowed, renumbered as 1-18.

3. No prior art teach or suggest a turn signal system (claim 1) for a vehicle comprising:

at least one sensor detecting road markers and generating therefrom road marker signals;

a turn signal deactivating in response to control command;

a controller receiving said road marker signals, said controller determining at least one of whether the system undergoing a turning condition or has completed said turning condition from said road marker signals, said controller generating said control command when the system has completed said turning condition; and

a redundancy system verifying said control command; wherein said redundancy system comprises a GPS system comprising a GPS receiver receiving signals from a satellite indicating a position of the system relative to said road markers.

4. No prior art teach or suggest a control method (claim 11) for a vehicle having a turn signal comprising:

receiving road marker data;

analyzing said road marker data as a function predetermined road conditions;

generating a control command to turn off the turn signal in response to said predetermined road conditions indicating one of a turn is completed or a lane change is completed;

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verifying occurrence of said at least one of said turn completed or said lane change is completed as a redundancy check; wherein verifying comprises receiving satellite tracking information for the vehicle and generating a verified turn completed signal as a function of a determination that the vehicle has completed said turn or generating a verified lane change signal as a function of a determination that the vehicle has completed said lane change; and

switching off the turn signal.

5. No prior art teach or suggest a control method (claim 18) for a vehicle having a turn signal comprising:

activating the turn signal;

receiving road marker data;

analyzing said road marker data as a function of predetermined road conditions, thereby determining whether said road marker data indicates that the vehicle is stopped, is turning, has completed a turn, is changing lanes, or has completed a lane change;

generating a control command to turn off the turn signal in response to said predetermined road conditions indicating one of a turn is completed or a lane change is completed;

verifying occurrence of said at least one of said turn is completed or said lane change is completed through a GPS system as a redundancy check;

generating a verified turn completed signal as a function of a determination that the vehicle has completed said turn or generating a verified

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lane change signal as a function of a determination that the vehicle has completed said lane change; and

switching off the turn signal in response to at least one of: said verified turn completed signal, said turn is completed, said a lane change is completed, or a signal indicating the turn signal has been activated for a threshold length of time wherein no turning or lane changing operation has occurred.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rao et al. (US 6757611) disclose a safety system control method for host automobile vehicle.

Madau (US 2004/0233051 A1) disclose a lane based automatic turn signal deactivation.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lam P. Pham whose telephone number is 571-272-2977. The examiner can normally be reached on 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery A. Hofsass can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lam Pham  
June 23, 2005.



JEFFERY HOFSAAS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600